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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/840,101

05/06/2004

Sung-Min Hong

04-01

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EXAMINER

PARK, ILWOO

ART UNIT

PAPER NUMBER

2182

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

03/06/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/840,101	<b>Applicant(s)</b> HONG, SUNG-MIN	
	<b>Examiner</b> Ilwoo Park	<b>Art Unit</b> 2182	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 06 May 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in-the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3,5,8-10,12 and 15-18 is/are rejected.
- 7) ☒ Claim(s) 4,6,7,11,13,14 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>5/6/04, 5/16/05</u> . | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. Claims 1-18 are presented for examination.

#### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –  
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 15-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Asano et al. [US 5,519,882].

As to claim 15, Asano et al teach a system for detecting a state of a disc drive, comprising:

an input node [#46 pin in fig. 1] for inputting a cable select signal; and

means for allowing the cable select signal to determine [col. 6, lines 11-19] the state of the disc drive when a jumper is set [col. 5, lines 55-58] to indicate that the disc drive is in a cable select state or when the jumper is missing.

4. As to claim 16, Asano et al teach wherein the jumper that is not missing is set to indicate that the disc drive is in a master state, a slave state, or the cable select state [figs. 3-6].

5. As to claim 17, Asano et al teach means for preventing the cable select signal from determining the state of the disc drive when the jumper is set to indicate that the disc drive is in the master state or the slave state [col. 6, lines 16-19; figs 3 and 4].

6. As to claim 18, Asano et al teach means for outputting a first logic level for indicating that the disc drive is in the master state when the jumper is set to indicate that

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the disc drive is in the master state [fig. 3]; and means for outputting a second logic level for indicating that the disc drive is in the slave state when the jumper is set to indicate that the disc drive is in the slave state [fig. 4].

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-3, 5, 8-10, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kida [US 6,735,671 B1] in view of Asano et al. [US 5,519,882].

As to claim 1, Kida teaches a method for detecting a state of a disc drive, comprising:

inputting a cable select signal; and

gating [col. 6, lines 10-31] the cable select signal to determine the state of the disc drive when the disc drive is in a cable select state ["setting of a CSEL signal" in col. 6, lines 1-9]. Though Kida teaches a master or slave setting of the disc drive by a jumper setting or a CSEL signal. However, Kida does not expressly disclose the jumper setting to indicate that the disc drive is in a cable select state. Asano et al teach using a cable select signal to determine the state of a disc drive when a jumper is set to indicate that a disc drive is in a cable select state [figs. 5 and 6] or when the jumper is missing.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the

invention was made to include a jumper set to indicate a master, a slave, or a cable select in order to increase user friendliness in setting of the state of the disc drive of Kida.

9. As to claim 2, Asano et al teach wherein the jumper that is not missing is set to indicate that the disc drive is in a master state, a slave state, or the cable select state [figs. 3-6].

10. As to claim 3, Asano et al teach preventing a cable select signal from determining the state of the disc drive when the jumper is set to indicate that the disc drive is in the master state or the slave state [col. 6, lines 16-19; figs 3 and 4]. Kida also teaches preventing the cable select signal from determining the state of the disc drive [figs. 3 and 6].

11. As to claim 5, Asano et al teach outputting a first logic level for indicating that the disc drive is in the master state when the jumper is set to indicate that the disc drive is in the master state [fig. 3]; and means for outputting a second logic level for indicating that the disc drive is in the slave state when the jumper is set to indicate that the disc drive is in the slave state [fig. 4].

12. As to claims 8-10 and 12, these constitute the system for implementing the method previously rejected. Accordingly, the combination of prior art cited also teaches or suggests the limitations corresponding to the method claims. Therefore, these claims are rejected under the same rationale.

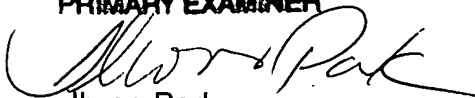
#### ***Allowable Subject Matter***

13. Claims 4, 6, 7, 11, 13, and 14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

**Conclusion**

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ilwoo Park whose telephone number is (571) 272-4155. The examiner can normally be reached on Monday through Friday from 9:00 AM to 5:30 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Huynh can be reached on (571) 272-4147. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

**ILWOO PARK**  
**PRIMARY EXAMINER**



Ilwoo Park

March 1, 2007